



# Future-Focused Program Delivery

FOR DISCUSSION – CONGRESS

## INTRODUCTION

Future-focused program delivery will revolutionize the education students receive at the University of Calgary by providing a personalized, modular approach to credentials. This bold initiative will increase options for online and blended learning, expand micro-credentials and stackable certificates and provide students and professionals with opportunities to create unique educational pathways.

**For our students**, such an approach provides choice and opportunity. You can do your education all at once or over several years. You can collect a series of certificates or stack them into a degree from a highly regarded research university. You can complete your education in person, online, or through a combination of both. And as you go through your career, you always have the option to come back and build upon what you've learned in your time here.

**For our faculty**, new program supports allow faster, more rigorous development of programming. Modularization means being able to dip into a pool of shared content and being able to focus on the concepts in which you are an expert – the concepts that truly excite you. Remote learning offerings bring you to a world audience and allow you the unique and exciting opportunity to mentor a global community of scholars.

**For our broader community**, it means an accelerated path to economic diversification in the industries of the future and the ability to pivot – now and in the face of any future economic challenges.

Much of this work is already happening on our campus. Much has already gone through our governance processes and is already beginning to bear fruit.

The *Working Group on Future-Focused Program Delivery* has been tasked with making recommendations and facilitating a community discussion on how to further extend our efforts in this space – to secure leadership in this space for the University of Calgary through innovative thinking, deep collaboration across faculties and units, and targeted investments in enabling infrastructure and systems.

Our proposals build on and learn from the successes of our campus community in this space – from the stackable-certificate master of nursing program to our hard-won experience with transitioning to online learning during the current global health emergency.

On behalf of the working group, we are happy to share our thinking on how best to continue the implementation of *Future-focused Program Delivery* at the University of Calgary,

**Florentine Strzelczyk**  
Deputy Provost

**Leslie Reid**  
Vice-Provost (Teaching and Learning)

## WHAT: RECOMMENDATIONS

The Working Group on Future-Focused Program Delivery has identified four streams of activity to future-focus University of Calgary program delivery: A) modularizing programs; B) expanding micro-credentials; C) reviewing current programs and developing new programs; and D) delivering programming in multiple modalities. These streams of activity have resulted in five proposals for consideration (see below section **HOW: PATH FORWARD**).

### A. Modularize programs

- Modularize current and future credentials where applicable, to create a more personalized learning/education journey for students;
- Identify and innovate programs that have high potential for online learning, experiential and work integrated learning, modularization (stackable and stand-alone certificates);
- Expand existing supports for rapid program development with a focus on expanding certificates (stackable, stand-alone, undergraduate, graduate & Professional Continuing Education);
- Establish new graduate pathways that combine an undergraduate degree with a professional master's program (4+1) or another graduate credential (e.g. graduate certificate/ diploma);
- Incentivize the development of modularized programs from a variety of traditional and non- traditional pathways;
- Track and curate experiential learning (EL) through the student record;
- Develop and formalize community partnerships for scaling up experiential learning.

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**Goal:** Develop a modularized and stackable credential framework and expand the number of undergraduate and graduate degree programs that offer modularized and stackable credentials at the University of Calgary.

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**Timeline:** Ongoing. Framework development begins Spring 2021; GFC approval Winter 2022.

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**Metrics:** The number of students enrolled in modularized programs; student experience qualitative metrics, quality and type of experiential learning opportunities for students.

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**Responsibility:** Faculties, units, FGS, Program Innovation Hub (Provost's Office), Continuing Education, Office of Experiential Learning

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### B. Expand micro-credentials

- Develop an institutional micro-credential framework and collaborate on provincial and national micro-credential initiatives;
- Create new and refine established pathways for micro-credentials to stack into certificate, diploma, or degree programs;
- Expand badges and other forms of micro-credentials, including embedded certificates;
- Explore the laddering of non-credit to credit within micro-credential recognition;
- Embed experiential learning offerings in micro-credential offerings

|                        |   |
|------------------------|---|
| <b>Goal:</b>           | Create a micro-credential framework and expand the number of micro- credential offerings at the University of Calgary   |
| <b>Timeline:</b>       | Micro-Credential Framework Development begins Spring 2021; GFC approval Winter 2022   |
| <b>Metrics:</b>        | Framework approved by GFC. The number of new credit and non-credit micro-credential offerings; number of students participating in micro- credential offerings; number of enrolments. |
| <b>Responsibility:</b> | Faculties, units, FGS, Program Innovation Hub (Provost’s Office), Continuing Education, Office of Experiential Learning   |

### C. Review current programs and develop new programs

#### Program Appraisal

- Establish and undertake an expedited program appraisal process to help faculties identify programs that will grow, maintain or suspend admissions;
- Develop a program appraisal evaluation framework and criteria;
- Utilize the OIA Curriculum Review dashboard--designed for self-serve that provides deans with data packages and historic enrolment trends--as part of the appraisal process;
- Begin rigorous appraisal of programs against key performance indicators (KPI’s) such as past performance, potential for future performance, ability to reach future markets, linkages with other programs, expanding access to underrepresented groups, connection with the institutional [Experiential Learning Plan](#);
- Program decisions are made by faculties and implementation of changes are reviewed and supported centrally;
- For continuing programs, confirm enrolment targets for next three years – focusing on growth in graduate programming and upskilling/reskilling programming, checking enrolment against targets annually.

#### Program Innovation

- Identify high-priority areas to transform and innovate existing programming (E.g. adding an EL or WIL requirement, guaranteed admission/transition from undergraduate degrees into graduate programs or adding a course-based route to a current thesis-based degree);
- Identify priority areas for new program development based on established criteria including, in part, student demand and labour market need;
- Where possible, align new program development with the four areas of focus in Growth Through Focus: Life sciences, City building, Energy transformations; and Exploring digital worlds;
- Support new and innovated programs with curricular integration of EDI and Indigenous perspectives;
- Fully support faculties through the concept, proposal development, approval process and implementation in order to facilitate rapid program development and to ensure consistency, speed, and quality;
- Expand supports for student mentorship (career, work-integrated-learning (WIL), EL), and academic supports for students;

- Develop an effective marketing and communication strategy for new programs that resonates with our community and recognizes the UCalgary brand of future-focused program delivery locally, nationally, and beyond.

### Program Closure

- From the program appraisal process, identify programs where suspension of admission leading to eventual termination is recommended;
- Fully support faculties through the suspension/termination approval process to facilitate rapid proposal development and to ensure consistency, speed and quality;
- Support students in the completion of their program of study through academic advising and/or providing alternative courses or options;
- Consider the establishment of a bridging fund for recently closed programs so that savings can be realized within the faculties in the current year.

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**Goal:** Review, innovate and create new academic programming at the University of Calgary. Suspend admissions and terminate programs that no longer are meeting student or labour market demand and are not aligned with the university's strategic direction.

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**Timeline:** Ongoing

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**Metrics:** Number of new programs approved. Number of program changes approved. Number of programs who have suspended admissions or been terminated Speed at which programs are approved for development, suspension or closure. Number of programs with EL and WIL Participation of students in EL and WIL (number of EL opportunities, type of EL) NSSE metrics on High Impact Practices (HIP), which are linked to EL Percentage of overall students enrolled in stackable certificate programs Revenue generated from new programs Revenue generated from revised/changed programs

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**Responsibility:** Faculties, units, Program Innovation Hub (Provost's Office), Registrar's Office, Continuing Education, Taylor Institute and Office of Experiential Learning

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### **D. Deliver programming in multiple modalities**

- Develop a long-term plan for program delivery through multiple modalities including face-to-face, blended and online programs;
- Expand infrastructure and support for learning technologies. Explore possible mergers, acquisitions, or partnerships with online institutions and/or technology platforms;
- Expand support for online teaching and curriculum design to support development of credentials for blended and online formats (instructional designers, technology specialists);
- Assess potential to grow enrolment by offering additional programming in blended/online format on longer-term basis;

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**Goal:** Develop a long-term plan and expanded opportunities for program delivery through multiple modalities including face-to-face, blended and online programs.

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**Timeline:** Ongoing

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**Metrics:** Enrolment in TI courses on teaching online. Number of online or blended courses (undergraduate, graduate and continuing education) delivered post- COVID. Percentage of overall student enrolments in online and blended courses

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**Responsibility:** Faculties, units, Taylor Institute, Registrar’s Office, Program Innovation Hub, Continuing Education

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## HOW: PATH FORWARD

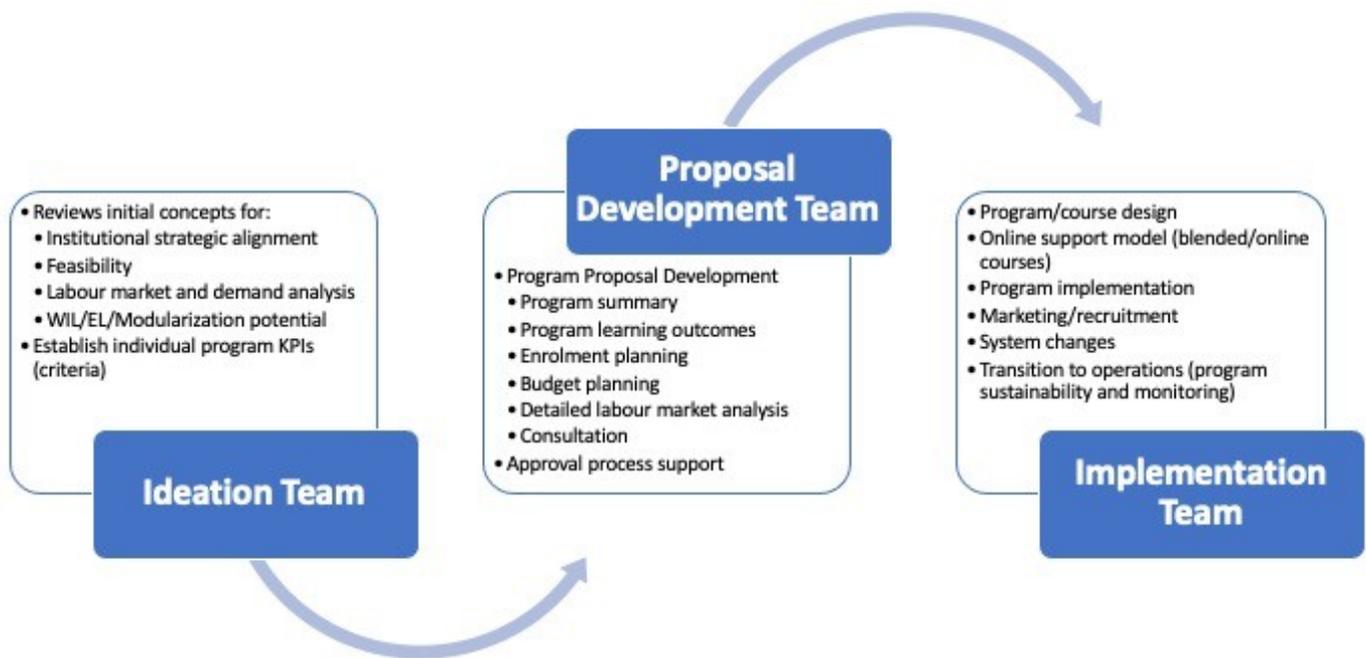
Subject to all necessary governance approvals and feedback from Congress, the Working Group has identified five streams of activity: 1) a program innovation hub; 2) incentive models for program development; 3) a review of governance and approval processes for new programs and program innovation; 4) a new approach to targeting and marketing programs; and 5) activating system changes.

### 1. Program Innovation Hub

Centralized support to assist faculties and units in implementing future-focused program delivery is required in order to meet the goals, timelines and metrics. The Program Innovation Hub will bring together existing specialists from around campus to provide coordinated support for program development – from ideation to implementation - to facilitate the rapid development of new academic programs, program innovation and program closure. Supports will include an intake process to determine strategic alignment, viability, labour market, and student demand.

Faculties and units will then have access to a program development team to assist throughout the process from idea to proposal development, and approvals through implementation.

As programs are developed, faculties will be required to consider their proposed curriculum through an EDI lens and from Indigenous perspectives. The Office of Indigenous Engagement and the Office of Equity, Diversity and Inclusion will be approached to provide leadership in the development program appraisal criteria and of new program criteria to support the advancement of Indigenous engagement and equity, diversity and inclusivity in program design and implementation. New models to incentivize the development of new programs will be proposed, as will changes to the governance model that will reduce the timeline required for approval. The three teams are noted below.



## 2. Incentive models for program development

- To ensure maximum engagement in the concept of future-focused program delivery and the creation of modularized and stackable learning credentials, a pilot project has launched in the Faculty of Graduate Studies to provide grant funding to units to offset costs of program development and/or to enable faculty to dedicate effort to program development (e.g. GAT, GANT, sessional instructors);
- Explore opportunities to incentivize development and non-standard delivery of programs by faculty through conventional (e.g. merit, extra-to-load) and unconventional models (e.g. royalty agreements, provision of graduate scholarships);
- Create positive feedback loops to direct additional tuition revenue to support thesis-based graduate students and continued program innovation/development.

## 3. Governance and approval process for new programs and program innovation

- To ensure that we are timely and responsive in the rapid development of new programs and program innovation, the internal governance process for program proposals and academic changes should be reviewed;
- The four CARU institutions are currently working with the Campus Alberta Quality Council (CAQC) on the possibility of moving to an audit-only status for new degree and credentials approvals. If approved, this would allow the University of Calgary to approve and deliver new academic degree programs in a rapid and timely manner, while still undergoing a QA audit on our processes every few years;
- The creation of graduate degree program frameworks that accommodate multiple dynamic specialties will allow responsive programming to be created and modified within our own existing approval process.

## 4. Develop programs and recruit new students through a targeted approach

Our specific focus on graduate programs and enrolment, modular undergraduate programs and upskilling/reskilling programs requires a differentiated approach to developing, targeting and marketing our programs to new and different groups of students. We want to ensure we understand those market needs and are building programs that support those needs. These elements include:

- Analyze enrolment trends at research-intensive universities;
- Understand employer needs;
- Develop recruitment and marketing strategies for target learner groups;
- Gather feedback from current students on interests and learner needs;
- Understand needs and expectations of new learner generations and demographics;
- Employ strategies in program development that have been proven to expand access to underrepresented groups, first-generation, mature, rural and remote learners.

**5. System changes (Peoplesoft, Destiny One, Educational Technology)**

- Any modularization of existing degree programs, new programs, changes to existing programs or the creation of micro-credentials that ladder into credit programs will require system changes in PeopleSoft and Destiny One;
- Process and systems optimization within FGS will be conducted to accommodate an increased graduate student body and increased system touchpoints.
- Substantial increases in blended and online learning require investments in educational technology infrastructure and sustainment resources.

**Proposed implementation timeline**

Many of the goals and initiatives for Future-Focused Program delivery are currently ongoing with additional coordination and support being provided to accelerate these priorities. A modularized and stackable credential framework and a micro-credentials framework are new initiatives that will begin development in spring 2021. The process for development of the frameworks will follow the process utilized for both the non-credit and certificate and diploma frameworks that have already been approved by GFC.

| Goals                                      | Winter 2021 | Spring 2021 | Summer 2021 | Fall 2021 | Winter 2022 | Progress                 |
|--|-------------|-------------|-------------|-----------|-------------|--------------------------|
| Modularized components                     | →           |             |             |           |             | Ongoing                  |
| Review, innovate and develop new programs  | →           |             |             |           |             | Ongoing                  |
| Multiple modalities (F2F, blended, online) | →           |             |             |           |             | Ongoing                  |
| Credential framework development           |             | →           |             |           |             | GFC approval Winter 2022 |

## WHY: OPPORTUNITY AND IMPERATIVES

With the shortening half-life of new knowledge and digital disruption impacting all fields of practice, the world of work is evolving quickly. **Maintaining competitiveness** in the new economy requires professional practitioners, in all fields, to continuously upskill and reskill.

The University of Calgary has the **potential to become a national leader** in this space, serving all of its students, including undergraduate, graduate students and students from continuing and professional education.

**Better integrating EDI and Indigenous perspectives** into new and innovated programs will benefit all students in their understanding of history, power and privilege resulting in a greater appreciation of diversity and pluralism in society. Diversity in societies is a fact, but how societies respond to this fact often determines access to resources, education, health and legal systems. Understanding these dynamics empowers our graduates to become aware and contributing citizens in the effort to create a more equal, diverse and inclusive society.

### The benefits of a future-focused approach to program delivery

- Undergraduate students

Future-focused program delivery is a response to a rapidly evolving economy and technological disruption in all sectors that require us to equip our students with the newest knowledge, relevant skills, foundational competencies, and meaningful experiences to shape the jobs that don't yet exist, navigate an uncertain future and shape the sustainable, prosperous, just and diverse society in which they want to live. Future-focused program delivery responds to the needs of new generations of learners, entrepreneurially minded, first-generation, rural and remote learners and those from historically underrepresented groups seeking expanded access to higher education.

Labour markets demand university graduates with future-ready skills and competencies evidenced through work-integrated and experiential learning opportunities. Future learners are looking for flexibility in educational content and delivery modes in pursuing their education in meaningful, accelerated and modularized segments including but also beyond the traditional undergraduate and graduate degrees. This approach provides learners with a competitive edge in a shifting labour market; supports the changing, advancing or shifting of careers enabling diverse learners to acquire new skills in a condensed timeframe; and increases access for non-traditional learners, diversifying the available pathways to a university education.

The integration of EDI and Indigenous perspective into current and new curricula will ensure that students develop foundational skills regarding power, privilege, racism, and social justice that form the underpinning of succeeding with communications and collaboration in increasingly multicultural and diverse work and social environments.

- Graduate students

Trends in higher education show an increased demand for innovative, flexible, skills and competency-focused graduate education, and this is true in both the Calgary and Alberta regions. The University of Calgary is uniquely positioned to respond to these needs as the primary provider of graduate education and training in the Calgary area. We will increase the ratio of graduate to undergraduate students in line with our aspirations to solidify our reputation and recognition as a top research-intensive University in Canada. Universities ranked highest in world (Oxford, CalTech, Cambridge, Stanford, MIT) have graduate to undergraduate student ratios of 50-60% or more.

An increased graduate to undergraduate ratio may also lead to improved student outcomes and student experience for both the graduate and undergraduate students. Growth in graduate student enrolment will respond to the increasing demand from professionals to upskill and reskill and Future-Focused Program Delivery such as modularized and stackable credentials create accessible learning pathways for both traditional and non-traditional students.

- Continuing and professional education students

Future-focused program delivery responds to the needs of professional and mid-career learners by growing the number of short, relevant and flexible programs designed to build pathways to specific careers or to provide continuing professional development across all disciplines.

Future-focused programming provides Continuing and Professional education students flexible, personalized learning in response to a new economy and technological change across all sectors. For the professional mid-career worker, this includes the ability to choose learning that is available in multiple modalities and with scheduling options that fit in their busy work and family lives. Flexible future-focused programming for mid-career professionals is provided on evenings, weekends, part-time, condensed format, etc. Future focused programming also considers potential pathways from professional continuing education to undergraduate and graduate degrees.

- Faculty and staff

The implementation plan for future-focused program delivery supports University of Calgary faculty and staff through the development of the Program Innovation Hub. The Hub model brings together experts from units across campus to provide coordinated support for program development and a community of practice. Additional staff positions in the Registrar's Office, Taylor Institute for Teaching and Learning and the Provost's Office have been allocated to support program development activities. The Faculty of Graduate Studies has also provided one-time credential development funds to support faculty members and graduate students to assist in proposal development activities.

- External community

With a high unemployment rate, yet an estimated 2,000+ vacant tech jobs in the city of Calgary, the University of Calgary will support the local community by providing reskilling, upskilling and educational opportunities to support the new economy. The province of Alberta, like the city of Calgary, is also working to accelerate economic diversification in industries of the future. It is anticipated that over the next three decades, we will see a dramatic decrease in demand for oil and gas, Alberta's primary export that contributes \$80B (20%) to the provincial GDP and employs ~140,000 Albertans. This, among other forces, is creating momentum to diversify the Alberta economy in other sectors. The Government of Alberta's Recovery Plan, and the City of Calgary's / CED's Calgary in the New Economy Plan outline current and emerging sectors where growth will be targeted. The University of Calgary will play a significant role in building the talent pipeline in these emerging sectors – training homegrown talent, upskilling/reskilling, and attracting talent from other jurisdictions. The University's future-focused program delivery will ensure that we are well-positioned to do so in a strategic and expeditious way.

## The imperative to action

As a Working Group, we see these benefits matched with powerful imperatives to revolutionize UCalgary education. The University of Calgary is one of the top research-intensive universities in Canada, and our value proposition lies in the cutting-edge new knowledge that delivers innovative and impactful solutions to improving the lives of Calgarians, Albertans, Canadians, and beyond. In this research- rich context, we offer our students:

- The opportunity to become part of a multi-disciplinary learning community;
- Access to a vibrant, high quality, innovative, and flexible curriculum;
- Transformative and authentic curricular and co-curricular experiences;
- The co-creation of new knowledge and innovation and its application into professional practice;
- Research-informed and evidence-based pedagogies; and
- Lifelong access for a global community of students, staff, alumni and employers.

Our university is committed to do more than help students gain knowledge and skills, it is to assist students in forming the habits that both liberate and challenge their thinking and equip them for, and dispose them to, the creation of a more just and inclusive society through civic involvement.

We want to develop lifelong learners that are independent and critical thinkers, to ensure that they understand and value democracy, discern the truth, recognize and digest narratives, and promote an understanding that the world is a collection of interdependent yet inequitable systems, that privilege some and disadvantage others. University of Calgary graduates will understand and appreciate that their own success is intertwined with the economic, social, psychological, physical and educational well-being of the communities in which they live and those they seek to serve.

**Through future-focused program delivery we will create, grow, and sustain meaningful, flexible, innovative and relevant programs of exceptional academic quality in era of limited fiscal resources and increasingly-at-risk funding.**

As our province expects students to contribute more to the costs of their education and our university to offer an education that strategically addresses labour market demands, it is more important than ever to consider program relevance, demand and cost. While we consider program innovation, development and investment, we also want to review existing program offerings to ensure that resources are in the right place and determine programs to discontinue, maintain or grow.

Program appraisal also identifies opportunities for course offerings that utilize multiple modalities to increase access and attract non-traditional learners or those looking for ongoing blended and online options. Delivering exceptional, high- quality, financially sustainable and revenue-generating programs in a variety of modes requires a thorough market analysis, understanding of student demand, an analysis of expected demographic and enrolment trends, and analysis of current offerings.

Growing university and faculty revenue through increased program enrolment in new innovative future-oriented programs will be more important than ever to achieve fiscal sustainability. We will access Government of Alberta enrolment expansion funding as well as other targeted funding initiatives and leverage these investments for maximum impact. We will also grow industry and community investments through partnerships.

Currently in Alberta, there is a post-secondary system review underway and it is important that the University of Calgary remains in control of its future. The current conversation includes opportunities of reducing duplication in the Alberta post-secondary system, thus a rapid analysis of current and future offerings and decisions about investment and divestment is crucial in order to also shift investments into new program development. The GOA is planning to implement a performance-based funding model on April 1, 2021 which could include up to 40% of our Campus Alberta Grant tied to metrics related to teaching/learning, research, and operations. The review of existing programs and development of new programs will be critical to ensure that we are meeting targets and not putting our institution's funding at risk.

## Positioning the University of Calgary within the Post-Secondary landscape

Within Calgary, we are the only comprehensive research-intensive institution, and we need to leverage this status in order to expand our reach and impact. Through future-focused program delivery we can modularize our existing degrees and provide meaningful add-ons in the form of micro-credentials. We are also able to **attract new students to the University of Calgary who are seeking learning opportunities outside of traditional degree programs** and those looking to reskill/upskill for the new economy. Our goals are to:

- become a national center for upskilling and reskilling enabling professionals and graduates to acquire the credentials necessary to advance their careers;
- modularize undergraduate and graduate programs where meaningful (stackable, packable, and nested credentials), thereby creating a more personalized learning/educational journey for students;
- innovate current programs by integrating work and experiential learning experiences (WIL and EL);
- create meaningful stand-alone and embedded micro-credentials that enable students to add foundational skills and competencies to their traditional degrees;
- create meaningful pathways from continuing and professional education to traditional degrees;
- deliver our programs in blended and hybrid modes with the goal to increase access to higher education to all learner groups and types;
- review existing programs and develop new programs in high priority areas;
- increase modes of program delivery (online, in-person and blended) where feasible, across the curriculum to meet access goals and the needs of adult and part-time learners.

Future-focused program delivery will be one of three big ideas that will **enhance our university's brand as Canada's most entrepreneurial university** that attracts:

- highly qualified faculty interested in innovation and societal impact;
- industry and community partnerships that deliver solutions to societal needs;
- entrepreneurially minded students and students interested in experiential learning opportunities;
- learners seeking flexible pathways to a high-quality, highly regarded education at a research-intensive institution.

We will communicate our milestones and achievements and new developments in future-focused program delivery consistently with external audiences, government, and community to enhance our brand.

## DISCUSSION QUESTIONS

### General

1. When considering future-focused program delivery, how do we best operationalize our commitment to ii' taa'poh'to'p and equity, diversity and inclusion?
2. How, if at all, would moving towards future-focused program delivery affect your work, your group, your department, your faculty or your institute/centre?
3. Which parts of the future-focused program delivery proposals resonate with you?
  - a. Which don't?
  - b. Why or why not?

## Faculty

4. What do you see as the opportunities and hurdles for the modularization of program in your faculty/unit?
5. Looking at the proposed program appraisal structure, which elements would help you to conduct reviews quickly and thoroughly?
6. What supports do you envision to develop and deliver programs in multiple modalities?
7. Many of you have embarked on new program development to increase undergraduate and graduate enrolment. What are the supports you are looking for to move ahead with innovative programming?

## Students

8. Which elements in your program do you appreciate the most?
9. Tell us which elements in your program could be enhanced to give you a better advantage in the future?
10. Could you imagine your program unfolding in a different way?

## **WORKING GROUP MEMBERS AND PROCESS**

The *Working Group on Transdisciplinary Scholarship and Areas of Focus* was comprised of the following members of the University of Calgary Senior Leadership Team:

- **Florentine Strzelczyk**, Deputy Provost (Chair)
- **Leslie Reid**, Vice-Provost (Teaching and Learning) (Chair)
- **Sandra Davidson**, Dean (Nursing)
- **Kate Hamilton**, Executive Director and Chief of Staff (President's Office)
- **Corey Hogan**, Senior Associate Vice-President (Communications)
- **Christine Johns**, Senior Director (Academic and International Strategies)
- **Sheila LeBlanc**, Director (Continuing Education)
- **Angelique Saweczko**, Registrar
- **Richard Sigurdson**, Dean (Arts)
- **Robin Yates**, Dean (Graduate Studies)

Members were charged with developing implementation plans for the ideas presented to the University of Calgary community in October 2020 town hall. Specifically, members were asked to seek out and take feedback received from the university community and other stakeholders, develop concepts and provide proposals that consider the opinions of our scholars, the strategic objectives of our university and the best thinking of group members.

Feedback was received from the University of Calgary community through email, anonymous online feedback and meetings between university leadership and various official and unofficial groups. Strategic direction came through the University's approved strategic plan (Eyes High) and research plan, and from the University of Calgary Executive Leadership Team.

## APPENDIX: ADDITIONAL READING

### Context

All University of Calgary Credentials follow the Post-Secondary Learning Act Programs of Study Regulations. Credentials must align with the Provincial Credential Framework and the University of Calgary General Faculties Council (GFC) approved Credential Framework. The University of Calgary also has a Non-Credit Credential Framework that has standardized the non-credit offerings that our faculties, non-academic units and Continuing and Professional Education offer.

While we will continue to offer credentials in the form of traditional degrees, we want to engage in rapid program development at a micro-level as well. The Alberta's Ministry of Education has recently reached out to post-secondary institutions to gain insight into current practices in micro-credentialing with the intent to establish a framework that sets norms for micro-credentials in order to ensure that these credentials are recognized within the province and across provinces and transferable between institutions. For the University of Calgary to expand its generation of micro-credentials, an internal Micro- Credential Framework (similar to our existing Credit and Non-Credit Certificate and Diploma Frameworks) is needed. With increasing interest in micro-credentials at the provincial level, an Alberta framework for micro-credentials may be soon under development.

### Current elements of future-focused program delivery at the University of Calgary

#### Micro-credentials

Micro-credentials are an umbrella term for discrete modular units of validated learning, encompassing knowledge, skills and competencies that are transferrable within disciplines, fields of practice, or professions. Micro-credentials provide credential recognition for what a student knows and can do at a modular level and may stack towards or be nested within traditional credentials such as certificates, diplomas and degrees. Learners have the flexibility to select their own experiences and set their own learning objectives and pathways. Micro-credentials are currently offered through:

1. Professional and Continuing Education offerings  
University of Calgary Continuing Education offers flexible, open access learning opportunities governed under the University of Calgary's Non-credit Credentials Framework, for example Professional Development Certificate, Executive Professional Certificate, Certificate of Achievement, Short-Series Courses. Short, validated learning, non-credit micro-credential courses and certificates are offered in about 50 **programming areas**. In cooperation with professional institutes and professional associations, Continuing Education short-cycle seminars and courses can be credited towards designations, applied towards continuing education credit, to maintain or acquire a **professional designation**. A number of professional faculties also offer P&C education under the governance of the Non-Credit Credentials Framework.
2. For-Credit Embedded Certificates  
Currently the university offers micro-credentials as add-ons to its curricular programming through the offering of Embedded Certificates. Embedded Certificates are institutionally approved credentials (not stand-alone) that are 12-24 units in length and are taken concurrently with a degree program. Embedded Certificates are normally topical in nature, and/or skills based. Embedded Certificates are normally completed within the units required for a degree however, students in some programs may require additional time/courses to complete a certificate. An

Embedded Certificate must be completed prior to graduation from a degree program and is noted on the transcript. We are exploring the expanded delivery and nesting of micro-credentials within credit programming.

### 3. Co-Curricular Badges

Badges are digital icons with embedded information about when, where and how they were earned. This information, or metadata, includes the name of the issuer, the date issued, and the criteria for earning the badge. Badges provide a visual record of achievement and can be combined with a portfolio to allow users to demonstrate their learning in ways other than traditional credit course work.

## Undergraduate Certificates and Diplomas

The University of Calgary has authority to award the following undergraduate certificates and diplomas:

- Certificate  
Composed of 15-30 units and is a free-standing credential. A transcript and parchment are issued; however, the recipient does not participate in convocation. Certificates may ladder into other credit programs. Certificates are identified in the provincial Provider and Program Registry System (PaPRS)
- Post-Bachelor's Certificate  
Composed of 24-36 units and is a free-standing credential. A transcript and parchment are issued; however, the recipient does not participate in convocation. University certificates may ladder into other credit programs. Post-Bachelor's Certificates are identified in PaPRS.
- Diploma  
Composed of 60-80 units and is a free-standing credential. A transcript and parchment are issued, and the recipient may participate in convocation. Diplomas may ladder into other credit programs. Diplomas are identified in PaPRS

## Graduate Certificate and Diplomas

Graduate certificates and diplomas are typically stand-alone credentials that can ladder into higher-level credentials and are identified in PaPRS. There are three types of graduate certificates and three types of graduate diplomas that may be awarded by the University of Calgary:

### Certificates

- Graduate  
Comprised of a minimum of 12 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation. May ladder into a master's degree.
- Post-Masters  
Comprised of a minimum of 12 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation. May ladder into a doctoral degree.
- Post-Doctoral  
Comprised of a minimum of 12 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation.

### Diplomas

- Graduate  
Comprised of a minimum of 18 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation. May ladder into a master's degree.

- Post-Masters  
Comprised of a minimum of 18 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation May ladder into a doctoral degree.
- Post-Doctoral  
Comprised of a minimum of 18 units. Will be noted on the transcript and a parchment will be issued. Students participate in convocation.

### **Modularized Stackable Graduate Degrees**

The University offers several stackable graduate degrees that include certificate(s), diploma and a master's degree. The stackable model has been pilot-tested and refined based on our experience in delivering the program. Examples of graduate degrees with stackable components (certificates, diplomas) include:

- Master of Education
- Master of Social Work
- Master of Nursing
- Master of Data Science and Analytics
- Master of Information Security and Privacy
- Master of Precision Health

In addition, there are many new modularized programs under development:

### **Modularized stackable Undergraduate Degrees**

The University is currently working on a model that builds off our success at the graduate level to create new stackable credentials at the undergraduate level.

### **Micro-credential or modularization framework**

The University currently has GFC approved Credit and Non-Credit Credential Frameworks. As the development of micro-credentials expands, there is a need to create an institutional modularization and stackable credential framework and a micro-credential framework that will help guide this work.